

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A DNA comprising a structure in which any one of DNA (a), DNA (b), or DNA (c) is placed under the control of a storage protein promoter, wherein

DNA (a) comprises a DNA in which a DNA encoding a storage protein signal sequence is added to the 5'-end of a DNA encoding an allergen-specific T-cell epitope peptide and/or a DNA encoding an ER-retention signal sequence is added to the 3'-end thereof;

DNA (b) comprises a DNA encoding a polypeptide in which a storage protein signal sequence is added to the N-terminal of an allergen-specific T-cell epitope peptide and/or an ER-retention signal sequence is added to the C-terminal thereof; and

DNA (c) comprises a DNA encoding a polypeptide having a structure in which an allergen-specific T-cell epitope peptide is inserted into a variable region of a storage protein.

2. (Original) A vector for preparing a plant accumulating a T-cell epitope, wherein said vector comprises the DNA according to claim 1.

3. (Previously Presented) A host cell comprising the DNA according to claim 1.

4. (Previously Presented) A method for accumulating an allergen-specific T-cell epitope in a plant, wherein said method comprises the step of introducing the DNA according to claim 1 into a plant.

5. (Original) A method for accumulating a T-cell epitope in a plant, wherein said method comprises the steps of:

(a) obtaining a DNA encoding an allergen-specific T-cell epitope peptide;
(b) adding a DNA encoding a storage protein signal sequence to the 5'-end of the DNA obtained in (a), and/or a DNA encoding an ER-retention signal sequence to the 3'-end thereof; and

(c) expressing the DNA of (b) under the control of a storage protein promoter in a plant.

6. (Original) A method for accumulating a T-cell epitope in a plant, wherein said method comprises the steps of:

(a) obtaining a DNA encoding an allergen-specific T-cell epitope peptide; and

(b) inserting the DNA of (a) into a DNA region encoding a variable region of a plant storage protein to express the DNA.

7. (Previously Presented) The method according to claim 4, wherein said allergen is a Japanese cedar pollen allergen.

8. (Original) The method according to claim 7, wherein said Japanese cedar pollen allergen is Cry j1 and Cry j2.

9. (Previously Presented) The method according to claim 4, wherein said T-cell epitope is accumulated in an edible part of a plant.

10. (Original) The method according to claim 9, wherein said edible part is a seed.

11. (Previously Presented) A transgenic plant produced by the method according to claim 4, wherein said plant comprises a T-cell epitope accumulated therein.

12. (Original) A transgenic plant which is a progeny or a clone of the plant according to claim 11.

13. (Previously Presented) A cell derived from the plant according to claim 11.

14. (Previously Presented) A breeding material of the plant according to claim 11.

15. (Previously Presented) A seed of the plant according to claim 11.
16. (Original) The seed according to claim 15, wherein said seed is thermostable.
17. (Previously Presented) The transgenic plant according to claim 11, wherein said plant comprises rice having a T-cell epitope accumulated therein.
18. (Previously Presented) A food composition for treating or preventing an allergic disease, wherein said food composition comprises the seed according to claim 15 as an effective ingredient.
19. (Original) The food composition according to claim 18, wherein said allergic disease is a type I allergy.
20. (Previously Presented) A method for producing a transgenic plant comprising a T-cell epitope accumulated therein using the method according to claim 4.
21. (Original) A method of producing a rice comprising a T-cell epitope accumulated therein using the method according to claim 10.
22. (Original) A rice comprising an allergen-specific T-cell epitope accumulated in albumen.
23. (Original) A food/drink product comprising the rice according to claim 22, wherein said product has an activity associated with the prevention, treatment, or alleviation of an allergic disease.
24. (Original) The rice according to claim 22, wherein said allergen is a pollen allergen.
25. (Original) A food/drink product comprising the rice according to claim 24, wherein said product has an activity associated with the prevention, treatment, or alleviation of pollinosis.

26. (Previously Presented) The method according to claim 5, wherein said allergen is a Japanese cedar pollen allergen.

27. (Previously Presented) The method according to claim 6, wherein said allergen is a Japanese cedar pollen allergen.

28. (Previously Presented) The method according to claim 26, wherein said Japanese cedar pollen allergen is Cry j1 and Cry j2.

29. (Previously Presented) The method according to claim 27, wherein said Japanese cedar pollen allergen is Cry j1 and Cry j2.

30. (Previously Presented) The method according to claim 5, wherein said T-cell epitope is accumulated in an edible part of a plant.

31. (Previously Presented) The method according to claim 6, wherein said T-cell epitope is accumulated in an edible part of a plant.

32. (Previously Presented) The method according to claim 30, wherein said edible part is a seed.

33. (Previously Presented) The method according to claim 31, wherein said edible part is a seed.

34. (Previously Presented) A cell derived from the plant according to claim 12.

35. (Previously Presented) A breeding material of the plant according to claim 12.

36. (Previously Presented) A seed of the plant according to claim 12.

37. (Previously Presented) The seed according to claim 36, wherein said seed is thermostable.

38. (Previously Presented) A food composition for treating or preventing an allergic disease, wherein said food composition comprises the seed according to claim 16 as an effective ingredient.

39. (Previously Presented) A food composition for treating or preventing an allergic disease, wherein said food composition comprises the seed according to claim 17 as an effective ingredient.

40. (New) A host cell comprising the vector according to claim 2.

41. (New) A method for accumulating an allergen-specific T-cell epitope in a plant, wherein said method comprises the step of introducing the vector according to claim 2 into a plant.

42. (New) A transgenic plant produced by the method according to claim 5, wherein said plant comprises a T-cell epitope accumulated therein.

43. (New) A transgenic plant produced by the method according to claim 6, wherein said plant comprises a T-cell epitope accumulated therein.

44. (New) A method for producing a transgenic plant comprising a T-cell epitope accumulated therein using the method according to claim 5.

45. (New) A method for producing a transgenic plant comprising a T-cell epitope accumulated therein using the method according to claim 6.